seminar

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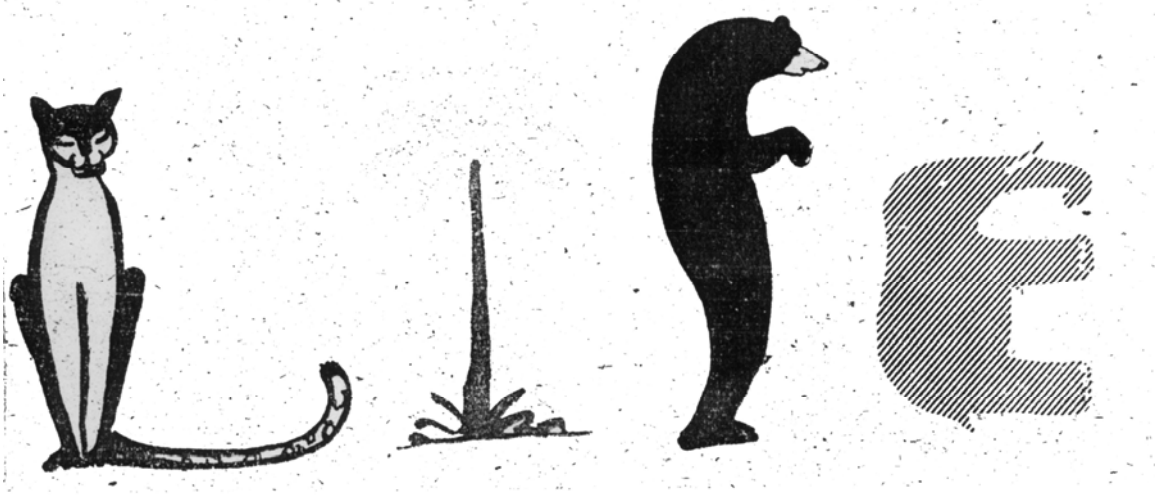

seminar

THE MONTHLY SYMPOSIUM POST BOX 338 NEW DELHI 1100

Founder Editors RAJ & ROMESH THAPAR

a journal which seeks to reflect through free discussion, every shade of Indian thought and aspiration. Each month, a single problem is debated by writers belonging to different persuasions. Opinions expressed have ranged from janata to congress, from sarvodaya to communist to independent. And the non-political specialist too has voiced his views. In way it has been possible to answer a real need of today gather the facts and ideas of this age and to help thinl people arrive at a certain degree of cohesion and cla in facing the problems of economics, of politics, of cul

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NEXT MONTH: CONSERVING OUR HERITAGI

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WILDLIFE

a symposium on

reconciling the needs of

man and wildlife

symposium participants

Animal farm

INDRANEIL DAS

WHILE the conservation of biological diversity is considered desirable and in the public interest, biodiversity conservation by itself may be difficult to quantify economically, particularly in India where the common man struggles to stay alive. Inhabitants of zones surrounding protected wildernesses often dislike protected areas because they generally provide little income, restrict their cattle from grazing within the boundaries, and lead to crop damage and loss of human lives to wild animals.

In these zones the state has exclusive rights to vast tracts of forest and other land, and few or no rights of the human populations inhabiting the area are recognized. The Indian Forest Department came to own a fifth of the land area of the subcontinent as a result of its colonial background, making it one of the largest forestry enterprises in the world. Conflicts over forest use practices have led to virtually uncontrolled, mostly unsustainable exploitation of forest resources by the local land owners, including those traditionally dependent on forests, recent settlers and agencies with interests in timber, mineral and other extractive processes. Thus, although states have appropriated large areas displacing local communities, the policing of forests has generally been lax, with the result that alternative structures to allow sustainable use of forests are non-existent and ineffective.

New management systems need to define the tenurial rights as well as needs of local communities, and more active participation in land use planning by the people should be encouraged. Sustainable utilization of wildlife, sometimes through farming and ranching, has the potential to create a 'vested interest' within local communities to protect wildlife, which otherwise has no monetary value to people. Whenever possible and feasible, modern conservation procedures should be synthesized with traditional conservation principles. Community participation should be encouraged by promoting sustainable use to build a solid socio-economic basis for conservation.

One of the few truly sustainable projects involving herpetofauna is the snake venom project run by Irula tribals in Tamil Nadu, South India. Irulas are a tribe of approximately 100,000, inhabiting the South Indian states of Tamil Nadu, Andhra Pradesh and Karnataka. Irulas have caught snakes, mostly for the now illegal snake-skin trade, for generations. The ban on the trade (in 1978) deprived them of this primary source of income. The Irula Snake Catchers Industrial Cooperative Society, formed in 1979, started with 26 Irula members with an expertise in catching, without any protective device, the 'big four' poisonous snakes in the plains of south India: the spectacled cobra (*Naja naja*), common krait (*Bungarus caeruleus*), saw-scaled viper (*Echis carinatus*) and Russell's viper (*Daboia russelii*).

Snakes caught from the wild are brought to the society's premises, where they are measured, weighed and clipped with a code identification unique to the snake. The snake is then kept for a fortnight, during which it is

milked of its venom two to three times for the manufacture of anti-venom serum and other life-saving drugs. After the extraction, the snake is released back into the wild. Proceeds from the sale of the venom have helped improve the lifestyle of the Irulas. Currently, the society has a membership of 200 Irula men, women and children.

Consumptive utilisation strikes a raw nerve among many colleagues, but given the fact that it works, it should at least be looked at impassionately. That chickens, pigs, cows, sheep and goats (leave alone rice, wheat, and virtually everything we eat) undoubtedly had wild ancestors shows the human genius. Achieving success in creating a closed system, with little or no dependence on the wild, is no mean feat, and it can be replicated. There is evidence to show that sustainable use of wild species – be it limited harvesting from the wild (ranching) or even a closed system of raising (farming) for meat, leather, horns, bones and so on, has the potential to improve the lifestyles of the local landowners, promote socio-economic growth in the region and even contribute to practical conservation activities through public participation in protecting what is envisaged as 'theirs', money for hiring of guards and purchase of guns, wireless and patrolling vehicles.

A large amount of data can be generated from studies of animals kept for sustainable utilisation projects, with little additional resources. This includes biological information, such as population size, recruitment, age to maturity, breeding period, mortality rates, population structure, sex ratio and relationships with sympatric species.

Opponents of sustainable utilisation claim that the system would lead to uncontrolled poaching of wild crocodilians should crocodilian farming be legalised. As a signatory to the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES), all shipments of endangered wildlife and wildlife products are accompanied with numbered tags, and every country receives an export quota from the CITES secretariat. As such, it is virtually impossible to fool the system, which has been shown to work even in countries of South America and Africa where law enforcement is less than perfect.

Whether we like it or not, the economics of some of the wildlife sustainable utilisation projects has been shown to be viable. On account of ecothermy in turtles and their adaptability to captive conditions, turtle farming has been shown to be more economical than cattle farms in South America. A one acre lake with the

Farm a crocodile and save a tiger

IN the wake of the CITES meeting in Harare, the Government of India has come under local and international fire for letting tiger and elephant numbers dwindle, and for voting against sustained usage of wildlife by countries which care for their wildlife heritage.

There is light at the end of the tunnel though, as long as a dialogue can be initiated. The government and a section of environmental lobbyists, claim that India does not have the requisite infrastructure to deal with control of wildlife usage. Our contention is that enough money can be generated through crocodile farming to pay for crocodile, tiger and elephant conservation in the wild and for management of habitats.

How can it be done? This is the plan, and if it sounds naive and uninformed, first stack it up against what is now being accomplished to save these animals and their habitats:

1. Crocodiles would be encouraged to breed again at farms like the Madras Crocodile Bank and other state farms where sexes have been separated and eggs destroyed for several years to disallow further breeding.
2. Hatchling crocodiles would be reared by an organisation set up especially for the purpose for two to three years till they reach the size preferred for leather goods.
3. The crocodiles will be fed on rats caught from rice fields, thus saving rice and giving employment to the Irula tribals and other communities among the so-called 'weaker sections'.
4. Crocodiles reared to about 1.5 m in length would be humanely slaughtered and virtually all of the reptile used for leather, protein production and other by-products.
5. Skins would be exported to Japan, France or Italy, the CITES signatory countries which pay the best prices for raw crocodile skins. Once the system proves to be workable, skins can be tanned and fine leather articles made in India to benefit Indian craftsmen and industry.
6. Each skin would be 'tagged' with an unreproducable magnetic number tag which can be simply read with a device similar to that used to read bar codes in a supermarket.
7. Meat would be consumed locally by Irulas and other local communities who appreciate the value of high protein, low cholestrol meat. This white meat has a high export value.
8. After covering all the overheads, the profits realized from the export of crocodile skins would be channelled into the conservation network: primarily NGOs with a proven track record of working successfully with the Forest Department and the people living in and around wild habitats (this concept obviously needs expansion and plenty of simple, imaginative input).

We estimate that by the third year a crocodile farm the size of the Madras Crocodile Bank, can produce 15,000 skins per year with a gross income of Rs 7,39,20,000 and an annual net profit of Rs 2,51,700,000, much of which could be directly used for protection of wild crocodiles, tigers, elephants, their habitats and research.

Does this sound radical? Not at all: plenty of other countries have done similar things for decades. We are talking of an industry that has 40 years of history with remarkable success, and good, healthy, wildlife populations to show for it.

It's time for an urgent dialogue on this issue. It's not a hornet's nest nor a Pandora's box. What we're talking about is practical wildlife management that works because it's dynamic and it is pro-people. What we've been trying to do in India so far has always been anti-people, unimaginative, and without adequate resources. It's time for a change! Why does India have to depend on overseas funds to conserve its own wildlife heritage?

Romulus Whitaker and Harry Andrews
Madras Crocodile Bank